



EXPERIMENT - 4

Object Oriented Programming Lab

Aim

Create a class student which have data members as name, branch, roll no., age, sex, five subjects. Display the name of the student and his percentage who has more than 70%.

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EXPERIMENT – 4

Aim:

Create a class student which have data members as name, branch, roll no., age, sex and marks in five subjects. Display the name of the student and his percentage who has more than 70%.

Source Code:

```
#include <iostream>
#include <string>

using namespace std;

class studentRecord{
    private:
        string name;
        string branch;
        int rollNo;
        int age;
        char sex[15];
        float marks;

    public:
        void getDetails();
        void check();
        void showDetails();
        void details();
};

void studentRecord::getDetails(){
    cout << "Enter name" << endl;
    cin >> name;
    cout << "Enter branch" << endl;
    cin >> branch;
    cout << "Enter Roll no. " << endl;
    cin >> rollNo;
    cout << "Enter age" << endl;
    cin >> age;
    cout << "Enter sexuality" << endl;
    cin >> sex;
    cout << "Enter total marks scored in 5 subjects" << endl;
```

```

        cin >> marks;
    }

void studentRecord::showDetails(){
    cout << "Name: " << name << endl;
    cout << "Percentage: " << (marks/5) << "%" << endl;
}

void studentRecord::check(){
    if (((marks/5)) > 70) {
        showDetails();
    }
}

void studentRecord::details(){
    cout << "name: " << name << ", branch: " << branch << ", roll no.: " << rollNo << ", age: " << age << ", sex: " << sex << ", marks: " << marks << endl;
}

int main(int argc, char const *argv[]){
    int students;
    cout << "Enter the no. of students: ";
    cin >> students;
    studentRecord studentsArr[students];
    for (int i = 0; i < students; ++i) {
        cout << "For student " << i + 1 << " : " << endl;
        studentsArr[i].getDetails();
    }

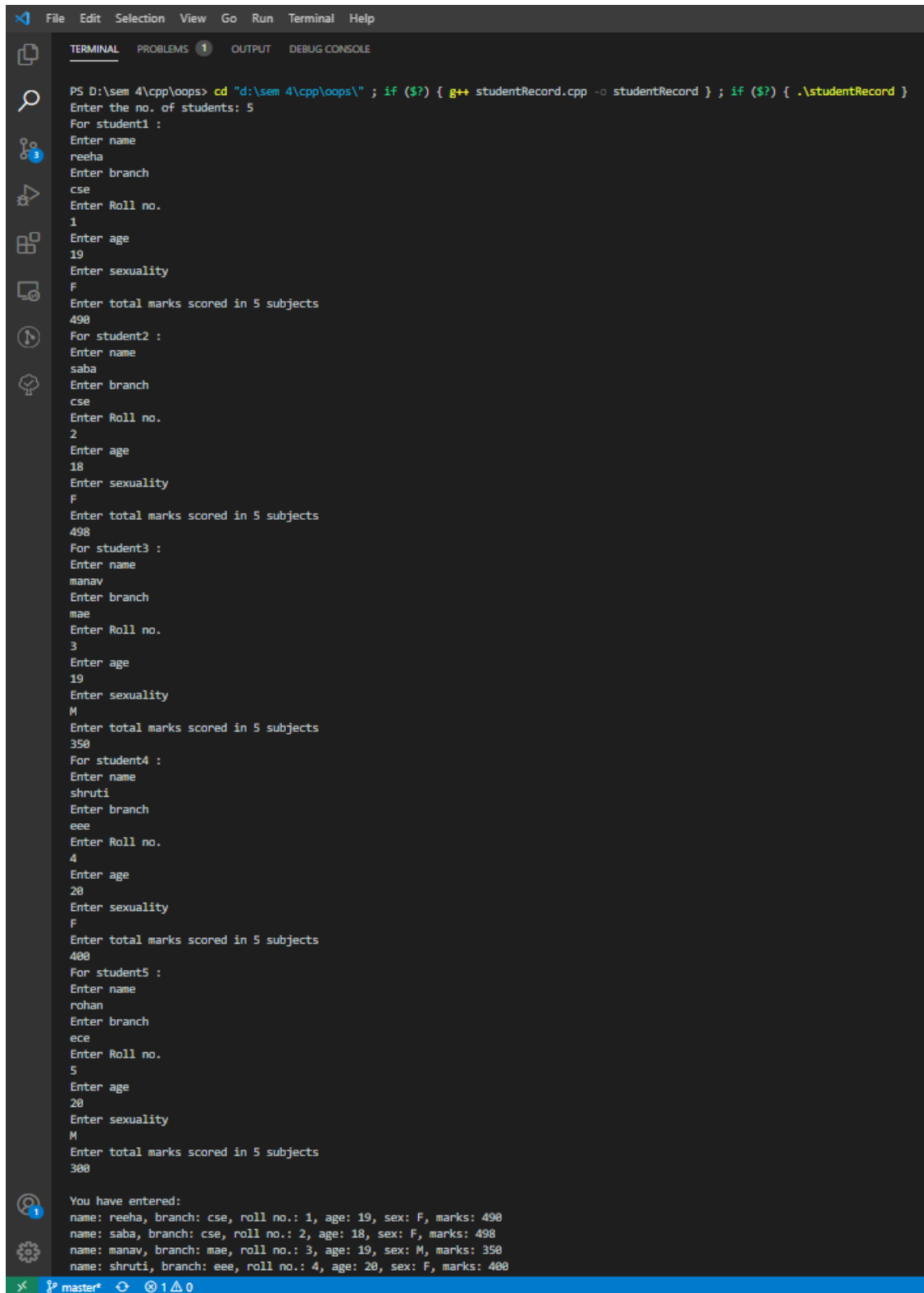
    cout << "\nYou have entered:" << endl;
    for (int i = 0; i < students; i++) {
        studentsArr[i].details();
    }

    cout << "\n\n\n" << endl;

    cout << "Students having marks greater than 70% are: " << endl;
    for (int i = 0; i < students; i++) {
        studentsArr[i].check();
    }
}

```

Output:



```
PS D:\sem 4\cpp\oops> cd "d:\sem 4\cpp\oops\" ; if ($?) { g++ studentRecord.cpp -o studentRecord } ; if ($?) { .\studentRecord }
Enter the no. of students: 5
For student1 :
Enter name
reeha
Enter branch
cse
Enter Roll no.
1
Enter age
19
Enter sexuality
F
Enter total marks scored in 5 subjects
490
For student2 :
Enter name
saba
Enter branch
cse
Enter Roll no.
2
Enter age
18
Enter sexuality
F
Enter total marks scored in 5 subjects
498
For student3 :
Enter name
manav
Enter branch
mae
Enter Roll no.
3
Enter age
19
Enter sexuality
M
Enter total marks scored in 5 subjects
350
For student4 :
Enter name
shruti
Enter branch
eee
Enter Roll no.
4
Enter age
20
Enter sexuality
F
Enter total marks scored in 5 subjects
400
For student5 :
Enter name
rohan
Enter branch
ece
Enter Roll no.
5
Enter age
20
Enter sexuality
M
Enter total marks scored in 5 subjects
300

You have entered:
name: reeha, branch: cse, roll no.: 1, age: 19, sex: F, marks: 490
name: saba, branch: cse, roll no.: 2, age: 18, sex: F, marks: 498
name: manav, branch: mae, roll no.: 3, age: 19, sex: M, marks: 350
name: shruti, branch: eee, roll no.: 4, age: 20, sex: F, marks: 400
```

You have entered:

name: reeha, branch: cse, roll no.: 1, age: 19, sex: F, marks: 490

name: saba, branch: cse, roll no.: 2, age: 18, sex: F, marks: 498

name: manav, branch: mae, roll no.: 3, age: 19, sex: M, marks: 350

name: shruti, branch: eee, roll no.: 4, age: 20, sex: F, marks: 400

name: rohan, branch: ece, roll no.: 5, age: 20, sex: M, marks: 300

Students having marks greater than 70% are:

Name: reeha

Percentage: 98%

Name: saba

Percentage: 99.6%

Name: shruti

Percentage: 80%

PS D:\sem 4\cpp\oops> █